15. (once amended) [A]The radioactive source suitable for use in brachytherapy of claim 1 wherein [comprising a radioactive isotope of iodine in the form of iodide ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate,]the radioisotope and the substrate [being]are sealed inside a biocompatible echogenic container.

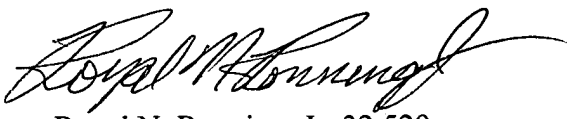
Remarks

Claims 1-15 are pending in the instant application. Applicants have amended claims 2-15 to more fully conform with U.S. practice and to delete multiple dependencies. A version of the claims marked up to show the amendments, as well as a clean version of the claims encompassing the amendments, is attached hereto.

Applicants respectfully assert that all amendments are fairly based on the specification, and respectfully request their entry.

Applicants believe that the claims, as amended, are in allowable form, and earnestly solicit the allowance of claims 1-15.

Respectfully submitted,



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Claims (marked-up version showing amendment(s))

[Claims]

What is claimed is:

2. (once amended) [A]The radioactive source [as claimed in]of claim 1 wherein the substrate plus the adsorbed iodine is sealed within a biocompatible container.

3. (once amended) [A]The radioactive source [as claimed in]of claim 2 wherein the container is echogenic.

4. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 3]of claim 1 wherein the isotope of iodine is iodine-125.

5. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 4]of claim 1 which has an activity in the range of about 200 mCi to about 1200 mCi.

6. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 4]of claim 1 which has an activity in the range of about 0.1 to about 5 mCi.

7. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 6]of claim 1 wherein the iodine containing compound is an iodohalogen compound, an organic compound containing a carbon-iodine bond, an iodoso-compound, a

diaryliodinium salt, an N-iodoamide, an iodoxy aryl compound or a covalently bonded inorganic iodide compound.

8. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 7]of claim 1 wherein the substrate is carbon, alumina, a zeolite, a titanium oxide, silica, a silicon oxide, a zeolite-type trivalent metal silicate, a metal phosphate, a metal hydroxyphosphate, a glassy material, aluminum nitride, a ceramic, a radiation resistant polymer, bone, coral, coal, limestone, cellulose, starch, agar, gelatin, chitin or hair.

9. (once amended) [A]The radioactive source [as claimed in any of claims 1 to 7]of claim 1 wherein the substrate is carbon.

10. (once amended) [A]The radioactive source [as claimed in any one of claims 1 to 9 which]of claim 1 further [comprises]comprising a binder.

11. (once amended) A method for the preparation of a radioactive substrate suitable for use in a brachytherapy source, [the method]comprising exposing a substantially non-radiation attenuating substance, other than an ion-exchange resin, to a source of radioactive iodide ions such that the iodide ions are adsorbed onto the surface of the substrate.

12. (once amended) A method for the preparation of a radioactive substrate suitable for use in a brachytherapy source, [the method]comprising exposing a substantially non-radiation attenuating substrate to a radioactive iodine-containing compound such that the iodine-containing compound is adsorbed onto the surface of the substrate.

13. (once amended) A method of treatment of a condition which is responsive to radiation therapy which comprises the temporary placement of [a]the radioactive source, [comprising]including a radioisotope of iodine in the form of iodide ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate, of claim 1 at the site to be treated within a patient for a sufficient period of time to deliver a therapeutically effective dose.

14. (once amended) A method for the inhibition of restenosis at a site within the vascular system of a patient which has previously been subjected to PTCA, the method comprising the temporary placement of [a]the radioactive source, [comprising]including a radioisotope of iodine in the form of iodide ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate, of claim 1 at the site to be treated within a patient for a sufficient period of time to deliver a therapeutically effective dose.

15. (once amended) [A]The radioactive source suitable for use in brachytherapy of claim 1 wherein [comprising a radioactive isotope of iodine in the form of iodide

ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate,]the radioisotope and the substrate [being]<u>are</u> sealed inside a biocompatible echogenic container.

Claims (clean version encompassing amendments)

What is claimed is:

1. A radioactive source suitable for use in brachytherapy comprising a radioactive isotope of iodine in the form of iodide ions or an iodine-containing compound, adsorbed on the surface of a substantially non-radiation attenuating substrate, with the proviso that when the iodine is in the form of iodide ions, then the substrate is not an ion exchange resin.

2. (once amended) The radioactive source of claim 1 wherein the substrate plus the adsorbed iodine is sealed within a biocompatible container.

3. (once amended) The radioactive source of claim 2 wherein the container is echogenic.

4. (once amended) The radioactive source of claim 1 wherein the isotope of iodine is iodine-125.

5. (once amended) The radioactive source of claim 1 which has an activity in the range of about 200 mCi to about 1200 mCi.

6. (once amended) The radioactive source of claim 1 which has an activity in the range of about 0.1 to about 5 mCi.

7. (once amended) The radioactive source of claim 1 wherein the iodine containing compound is an iodohalogen compound, an organic compound containing a carbon-iodine bond, an iodoso-compound, a diaryliodinium salt, an N-iodoamide, an iodoxy aryl compound or a covalently bonded inorganic iodide compound.

8. (once amended) The radioactive source of claim 1 wherein the substrate is carbon, alumina, a zeolite, a titanium oxide, silica, a silicon oxide, a zeolite-type trivalent metal silicate, a metal phosphate, a metal hydroxyphosphate, a glassy material, aluminum nitride, a ceramic, a radiation resistant polymer, bone, coral, coal, limestone, cellulose, starch, agar, gelatin, chitin or hair.

9. (once amended) The radioactive source of claim 1 wherein the substrate is carbon.

10. (once amended) The radioactive source of claim 1 further comprising a binder.

11. (once amended) A method for the preparation of a radioactive substrate suitable for use in a brachytherapy source, comprising exposing a substantially non-radiation attenuating substance, other than an ion-exchange resin, to a source of radioactive iodide ions such that the iodide ions are adsorbed onto the surface of the substrate.

12. (once amended) A method for the preparation of a radioactive substrate suitable for use in a brachytherapy source, comprising exposing a substantially non-radiation attenuating substrate to a radioactive iodine-containing compound such that the iodine-containing compound is adsorbed onto the surface of the substrate.

13. (once amended) A method of treatment of a condition which is responsive to radiation therapy which comprises the temporary placement of the radioactive source, including a radioisotope of iodine in the form of iodide ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate, of claim 1 at the site to be treated within a patient for a sufficient period of time to deliver a therapeutically effective dose.

14. (once amended) A method for the inhibition of restenosis at a site within the vascular system of a patient which has previously been subjected to PTCA, the method comprising the temporary placement of the radioactive source, including a radioisotope of iodine in the form of iodide ions or an iodine-containing compound adsorbed on the surface of a substantially non-radiation attenuating substrate, of claim 1 at the site to be treated within a patient for a sufficient period of time to deliver a therapeutically effective dose.

15. (once amended) The radioactive source suitable for use in brachytherapy of claim 1 wherein the radioisotope and the substrate are sealed inside a biocompatible echogenic container.